

CURRENT LINE

DAR STATEWIDE PROJECT INFORMATION NEWSLETTER

VOLUME 6, NUMBER 1, May 2002

LICENSES, RULES & REGULATIONS

REGARDING NEW MINIMUM SIZE RULES FOR HAWAII

Public hearings for the new minimum size rule changes will be announced at a later date. At this time the new minimum size rules are not yet in effect. If you have any questions regarding this matter, please call Kimberly Lowe at 587-0114.

REMINDERS

Mullet Season

(for `ama`ama or striped mullet) is now open as of March 1st and will run till **November 30th**. Remember that minimum size for spear and/or sale is 7 inches.



Waikiki Diamond Head Fishery Management Area is **open** to fishing from January 1, 2002 to December 31, 2002. The area will be closed to fishing from January 1, 2003 to December 31, 2003.

Nuuanu Catfish

For those of you who have already put in your application cards for the May 2002 Catfish Opening, remember to renew your freshwater fishing license if you need to before your allotted fishing time. The bag limit is two catfish per angler. If you missed the deadline for the May 2002 Catfish Opening, the next Opening is scheduled for August 2002. Cards for the next opening should be available around July 1st at the **DLNR Visitor Center** in the Kalanimoku Building, Room 131 and at various tackle shop outlets around Oahu..



Akule & Halalu

The main change for Hanamaulu Bay And Ahukini Recre-



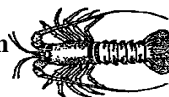
ation Pier, Kauai is a recreational bag limit of 75 akule and 5 mullet per person per day. Two new fisheries management areas were established at Nawiliwili Harbor and Port Allen Harbor on Kauai. The main regulations are a no netting area and a recreational bag limit of 75 akule per person per day.

The main changes for users of akule nets are 1) to raise the minimum mesh size for non-commercial nets for akule from 1-1/2 inches to 2 3/4 inches, 2) to restrict the use of bag nets for akule to commercial fishers only, 3) to increase the minimum mesh size for commercial surround nets from 1 1/2 inches to 2 1/2 inches, and 4) to require that commercial bag netters notify the department when holding schools longer than three days.

The main change for the sale of hahalalu is a commercial bag limit of 200 pounds per person per day during July to October. This change is to assist enforcement of a current regulation that prohibits the taking of hahalalu with a net from July to October.

Spiny Lobster Season Slipper Lobster Season & Kona Crab Season

will be closed between **May 1st thru August 31st**. These animals spawn during this time, so let's give them a chance to breed and multiply.



Moi & Moi-li'i Season will be closed between

June 1st and August 31st. These animals spawn during the summer months so let's give them a break to help us increase their numbers.



INSHORE PROJECTS

ULUA TAGGING PROJECT UPDATE



As we get ready for the 2002 Ulua/Papio season, we begin the season with close to 2000 tagged fish swimming in our Island waters. We are hopeful that some of these will be recaptured by both our volunteer taggers and other fishermen. We are anxiously looking forward to the stories these fish will reveal as they are recovered over time. We are also hopeful to have more fish tagged and released by our volunteer fishermen. Currently our volunteers number around 233 individual fishermen, 3 fishing clubs, and 19 charter & commercial vessels. We would like to increase our numbers of volunteer taggers this coming season. If you would like to help us by participating as a volunteer fisherman for the Ulua Tagging Project, please contact Annette Tagawa or Clay Tam on Oahu at (808) 587-0593. You can also email us at:

uluatagging@exec.state.hi.us

The following is an updated summary of all the fish that have been tagged and recovered as of 3/31/02:

INDEX

Update on new minimum size rules. 1	
Reminders	1
Ulua Tagging Project Update.....	2
Artificial Reef Update	3
Nuuanu 2001 Catfish	
Wrap-Up	3
Current Line under transition	3
Fish Facts - Pao'pao	4

Tagged and Released Fish

Species	Number of Fish Tagged	Size Ranges of Fish Tagged (inches in fork length)	Number of Recoveries
Kahala	972	7 to 52	72
White Ulua/Papio	163	5.75 to 58.5	15
Omilu	721	4.25 to 30	134
Butaguchi	32	20 to 36.5	-
Papa	15	8 to 26.5	-
Gungkan (black ulua)	3	28 to 29	-
Kagami	2	14 to 32	-
Menpachi (Bigeye)	11	6.5 to 15	-
No-Bite	22	5.75 to 21	-
Paopao	4	9 to 21	1
TOTAL FISH TAGGED	1945	TOTAL FISH RECOVERED	222

Due to the various range in the numbers of fish tagged and released by Project participants, we would like to acknowledge the tagging effort(s) made by each participant based on the following categories (* denotes commercial or charter captain):

100 + Club (over 100 fish tagged)

Ho'oheno Furushima Jeffrey E. Rogers*
Capt. Silas Naig*

Ulua Division A (51 to 100 fish tagged)

Capt. Gary Dill* Paul Murakawa
Alan Komagome William Strickland*

Ulua Division B (11 to 50 fish tagged)

Keith Caldwell Dale Leverone*
Joseph Carvalho Jr. Kirk Murakami
Kenneth Corder* Capt. Guy Ohara*
Edwin Fukuchi Floyd Otani.
Michael Horii Don Saito Jr.
Sean Jensen Guy Terwilliger*
Harriet Kahihikolo Capt. Ed Timoney*
Dennis Kamikawa Collins Tomei

Papio Division A (6 to 10 fish tagged)

Albert Cabatingan Kyle Nishioka
Paul Chong Cy Otsuka
Michael Chun Brandon Shin
Bull Dela Cruz Michael Taketa
Capt. Dane Johnson* Breland Tam
Kurt Kawamoto Clay Tam
Charlie Lindsey Keoni Walters
Wes Masuda Dalton Wong

Papio Division B (1 to 5 fish tagged)

Onofre Abad Agapito Mendoza
Fermin Baguio Jr. Phillip Munoz
Clay Ching Kyle Narimasu
Nathan Ching Roy Nihoa
Dane Christensen Edward Ohye
Stephen Chun May Okihiro
Brett Fee Paul Okouchi
Todd Fuchigami Kevin Otaguro
Val Choy Foo Mundo Pacheco
Chris Gerken Joe Randall
Kevin Ishikawa Mike Sabate
Derrick Kameoka Jared Say
Eric Kanemura Wayne Sunouchi
Bernice Kaneshiro Brian Tachibana
Reed Kondo Corwin Tam
Wayne Kuwana Ross Tanoue
Kevin Kuwaye Gregory Terry
Kent Lindsey Dickie Tollefson
Eric Magarifuji Brian Yoshida

We'd like to extend a **BIG THANK YOU** to all of our volunteer fishermen who have helped us tag over 1900 fish so far and still counting! Keep up the tagging effort everyone and we're sure to have LOTS of new information coming in during this next Ulua Season!

Recoveries

The following is just some of the key facts taken from the data we've received so far.

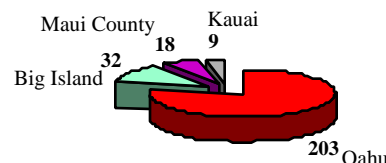
Fish Facts for Recovered Fish

	Kahala	Omilu	White
<i>Farthest Distance Traveled:</i>	100 miles - Kona to Kumukahi	4.25 miles - Kahului to Sprecklesville	2.1 miles - Kewalo to Waikiki
<i>Longest Days of Freedom:</i>	732 days = 2 yrs. & 2 days	366 days = 1 yr. & 1 day	213 days = 7 months
<i>Shortest Days of Freedom:</i>	3 days	2 days	5 days
<i>Largest Fish Recovered:</i>	49 inches fork length	18 inches fork length	37 inches fork length
<i>Smallest Fish Recovered:</i>	7 inches fork length	4.5 inches fork length	7 inches fork length

2001 Ulua Tagging Project Review

The following is a chart indicating the number of volunteer fishermen that are helping us to tag ulua and papio statewide:

Total Number of Volunteer Fishermen as of 2/28/02

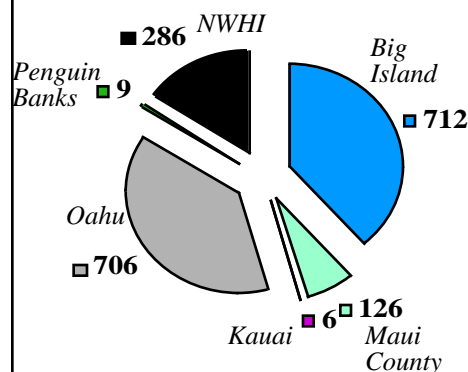


Total = 262 Volunteer Anglers

As you can see, Oahu carries 78% of our volunteer taggers. We still need more volunteers, especially on the neighbor islands to help us tag, release and recover more fish.

As of 2/28/02, 1845 ulua, papio and kahala were tagged throughout the state.

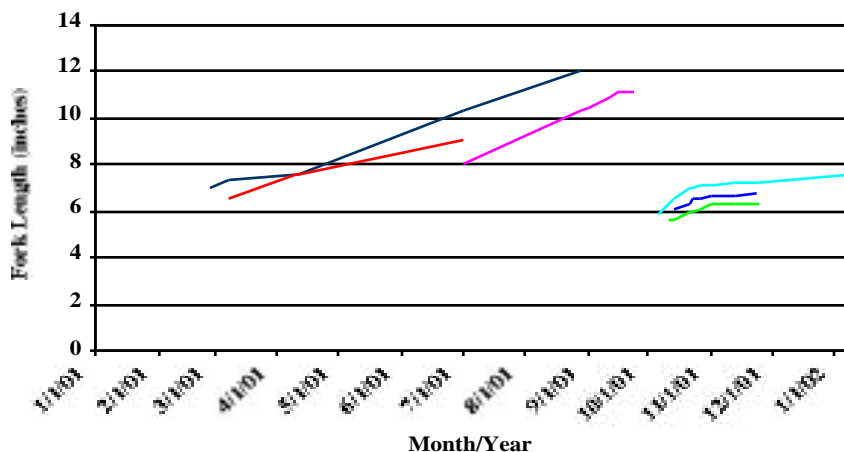
Numbers of Fish Tagged at Each Island Locale



The data shows that the Big Island has the most fish tagged at 38% with Oahu coming in a very close 2nd also at 38% - who says Oahu "no more fish"?!!

The data is also showing some interesting information on the omilu. The Ulua Tagging Project has been fortunate enough to have among its volunteers a group of fishermen who have been steadily tagging omilu over the past year in the Kakaako area on the island of Oahu. In 2001 these fishermen managed to tag 289 omilu out of which 99 were recaptured giving a recovery rate of about 34%. Out of the 99 recaptures, 11 were captured and rereleased at least 3 to 4 times. The recovery rate of 34% is rather high reflecting the fact that the papio are particularly vulnerable when

Representative Growth of Omilu in Kakaako



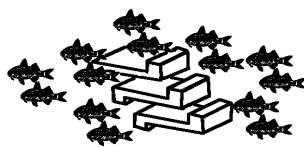
they are small. This particular area in Kakaako appears to act as a nursery for these papio providing the shelter and food they need to reach maturity.

The graph above illustrates the growth rate of the omilu in the Kakaako area. Each line in the graph represents one omilu, each of which were tagged and recaptured 3 to 4 times allowing us to see its' growth rate over time. What was very noticeable was that these omilu didn't seem to grow very much during the first part of the year (Jan. to Apr.). Over a four month time period, the omilu exhibited a growth of 0.0 to 0.25 inches at the most. However, starting in May, the omilu started to exhibit average growths of 0.75 inches per month! This spurt growth started at about the same time the oama came in on Oahu and continued throughout the oama season till about Oct. or Nov. When the omilu reached about the 12 to 13 inch size, fish in this size range seemed to have disappeared. The 12 to 13 inch size range is about the size that the omilu begin to reach *sexual maturity*. Their disappearance leads us to believe that they are traveling out of the area. One 12 inch omilu on Maui was recaptured and estimated to have traveled 4.25 miles from the area it was originally tagged in a span of 23 days. Omilu this size and up probably require a change in diet and travel to forage on more fish-type prey items (food) that mature fish need for growth and reproduction. The instant these 12 to 13 inch omilu were not seen, a new size class of 4 to 5 inch omilu recruited into the Kakaako area. You can see in the graph above that when the new recruits came into the area, they had a short growth spurt which leveled off at about

the 6 to 7 inch range which brings us back the the size that were being caught at the same time one year ago. Through this project we have learned that the omilu exhibits the most growth when the oama (or other bait) comes in and that there is a recruitment of new individuals once a year. We are hoping that someone will recover the larger fish this coming ulua/papio season which will definitely tell us how much they grew since they left and how far they've traveled. We also hope to get some similar information on the other ulua and papio species in the future

MAHALO for all of your tagging and recovery efforts! This project and the information we gained from it would not be possible without the help from Hawaii's fishermen and women. Keep up the good work, everyone and keep that data coming in!

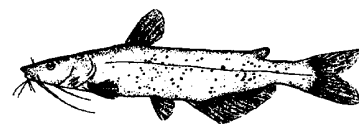
ARTIFICIAL REEF UPDATE



On July 19, 2001, 1,840 "Z" habitats were deployed in two areas of the Waianae Artificial Reef. American Marine Corporation was contracted for tug and barge services to complete the deployment. the cost to fabricate, transport, load and deploy the 1,840 habitats was nearly \$300,000 or about \$160 each. However, most, if not all, the cost for this operation was funded by federal aid monies due to reimbursements and in-kind matching from donated materials and services.

FRESHWATER FISHING

NUUANU CATFISH 2001 WRAP-UP



Maintaining the catfish population at Nuuanu Reservoir for freshwater sport-fishing is also another project that is funded through the Federal Sportfish Restoration Program. Federal funds, along with State matching amounts are used in part to stock and maintain the channel catfish population in Nuuanu Reservoir. The following are some statistics from last year:

Nuuanu Reservoir Catfish Openings

	85th Open- ing May 2001	86th Open- ing Aug. 2001	87th Open- ing Nov. 2001
# of anglers	1817	2706	2130
# of fish	911	1169	571
Ave. length	19.86 inches	19.81 inches	20.65 inches
Ave. weight	4.22 lbs.	4 lbs. 2 oz.	3 lbs. 7oz.
largest fish	17 lbs 9 oz at	20 lbs 8 oz. at	23 lbs at
caught	33 inches	33.5 inches	33.75 inches

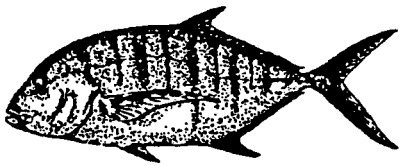
The next opening is May 2002. If you missed putting in application cards for this opening, the next opening is for August 2002 and application cards should be available in July.

MAHALOS!

Current Line Under Transition

Due to time and budget constraints, Current Line will not continue to be published as is on a regular basis. However, the newsletter will continue to serve as an avenue to update those who are involved and interested in DAR's Ulua Tagging Project. We deeply appreciate all your support and readership throughout the years. Mahalo to all of you for your interest in Current Line and the Division of Aquatic Resources!

FISH FACTS



Gnathanodon speciosus

(Ulua pa'opa'o, Yellow Ulua, Golden Trevally)

SIZES

Length: specimens can reach lengths of up to 40 inches

Weight: can reach up to 30 pounds **but usually around 10 pounds**

BREEDING

Sexual Maturity: Fish are sexually mature at around 26 inches in length at 4.3 years of age

Spawning: unknown

LIFESTYLE

Habitat: Occurs in deep lagoons or seaward reefs in depths of up to 33 feet.

Usually seen over sandy bottoms where they feed by rooting for crustaceans and other invertebrates in the sand. Small juveniles may be found living among the tentacles of jellyfish.

Diet: Feeds on various crustaceans and other invertebrates found in the sand. Also feeds on small fishes.

Life Span: 20.6 years

Distribution: Indo-Pacific and tropical eastern Pacific from Baja California to Peru.

RELATED SPECIES

The paopao is a member of the Jack Fish Family which includes all species of ulua and papio as well as other fishes such as omaka, opelu, akule, lae and rainbow runner.

Paopao are caught every once in a while by local fishermen. The state record catch was taken by a fish weighing in at 16 pounds, 3 ounces. The paopao is valued as a food and game fish. Among

Hawaiians, this fish is considered the best among the ulua for eating raw.

The following table will give you a general idea on the relationship of length to weight on this species. Please note that these are just ball park figures and meant only to give you a general idea on the relationship of length, weight and age.,

<i>Length and Weight of Pa'opa'o</i>		
Standard Length (inches)	Weight (pounds)	Age (years)
11	1	1
16	3	2
21	5.6	3
24	9	4
26	10	4.3
28	13	5
31	17	6
33	21	7
35	25	8
37	29	9

The Department of Land and Natural Resources receives financial support under the Federal Aid in Sport Fish Restoration and other federal programs. Under Title VI of the Civil Rights Act of 1964, Section 504 of the Rehabilitation Act of 1973, Title II of the Americans with Disabilities Act of 1990, the Age Discrimination Act of 1975, Title IX of the Education Amendments of 1972, and the laws of the State of Hawaii, the U.S. Department of the Interior and the State of Hawaii prohibit discrimination on the basis of race, color, religion, sex, national origin, age, and disability. If you believe that you have been discriminated against in any program, activity or facility, or if you desire information, please write to: Affirmative Action Officer, Personnel Office, Department of Land and Natural Resources, 1151 Punchbowl Street, Rm. 231, Honolulu, HI 96813, or the U.S. Fish & Wildlife Service, Office for Human Resources, 1849 C Street NW, Room 3058, Washington, D. C. 20240.

